

Compact Fluorescent Lights

Information provided by the South Carolina Energy Office and the South Carolina Department of Health and Environmental Control

Why use CFLs?

Switching from traditional incandescent light bulbs to Compact Fluorescent Lights (CFL) is an effective, accessible change everyone can make right now to reduce energy use at home and prevent greenhouse gas emissions. Lighting accounts for close to 20 percent of the average home's electric bill. CFLs use up to 75 percent less energy than incandescent light bulbs, last up to 10 times longer and provide a quick return on investment.



Where to Use CFLs

CFLs provide the greatest savings in fixtures that are on for a substantial amount of time each day. At a minimum, CFLs should be installed in fixtures that are used at least 15 minutes at a time. CFLs are usually found in family and living rooms, kitchens, dining rooms and bedrooms, as well as outdoors.

How to Choose the Right Light

Matching the right CFL to the right kind of fixture helps ensure that it will perform properly and last a long time. For example:

- CFLs perform best in open fixtures that allow airflow, such as table and floor lamps, wall sconces, pendants and outdoor fixtures.
- For recessed fixtures, it is better to use a reflector CFL than a spiral CFL since the design of the reflector evenly distributes the light down to your task area.
- If a light fixture is connected to a dimmer or three-way switch, you'll need to use a special CFL designed to work in these applications. Make sure to look for CFLs that specify use with dimmers or three-way switches.
- Choose a CFL that offers a shade of white light that works best for you. For example, while most CFLs provide warm or soft white light for your home, you could choose a cooler color for task lighting.
- To choose the CFL with the right amount of light, find a CFL labeled as the equivalent to the incandescent bulb you are replacing. Light bulb manufacturers include this information right on the product packaging to make it easy for consumers. Common terms include "Soft White 60" or "60 Watt Replacement," for example.

About Us:



The South Carolina Energy Office provides a broad range of resources designed to help citizens, businesses and public entities save energy and money through greater efficiency, better information and enhanced environmental quality.

www.energy.sc.gov





The South Carolina Department of Health and Environmental Control promotes and protects the health of the public and the environment.

www.scdhec.gov

Incandescent Bulb vs. CFL Bulb Performance

Examining purchase costs, performance life and operational costs

	Conventional Lamp Application		Bathroom Vanity Application	
	60 Watt Incandescent	14 Watt CFL	40 Watt Incandescent	10 Watt CFL
				
Approximate Purchase Price:	\$0.75	\$2.00	\$6.00	\$14.00
Bulb Life:	1,000 hours	10,000 hours	1,000 hours	10,000 hours
Total cost to operate each type of bulb for 10,000 hours, including replacement cost:	\$59.00		\$99.00	
	\$12.00		\$9.00	

Mercury and CFLs

CFLs contain a very small amount of mercury sealed within the glass tubing – an average of five milligrams – about the amount that would cover the tip of a ballpoint pen. By comparison, older thermometers contain about 500 milligrams of mercury.

Mercury is an essential component of CFLs and is what allows the bulb to be an efficient light source. No mercury is released when the bulbs are intact or in use. Many manufacturers have taken significant steps to reduce mercury used in their fluorescent lighting products. In fact, the average amount of mercury in a CFL continues to drop thanks to technological advances and a commitment from members of the National Electrical Manufacturers Association.

CFLs are made of glass and can break if dropped or roughly handled. Be careful when removing the bulb from its packaging, installing it or replacing it. Always screw and unscrew the lamp by its base (not the glass), and never forcefully twist the CFL into a light socket. If a CFL burns out or breaks, follow the clean-up and disposal procedures on the next page.

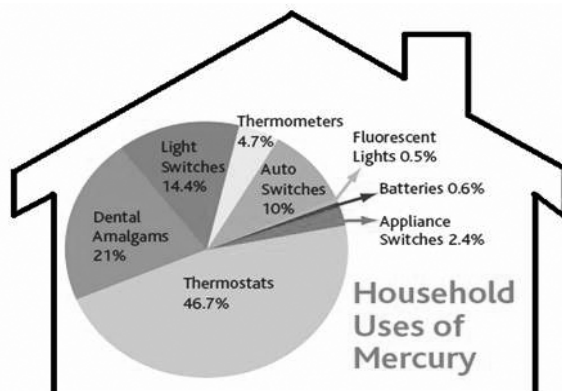


Image courtesy of the North Carolina Department of Natural Resources

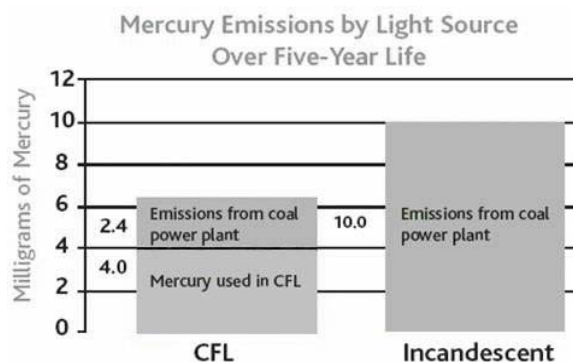


Image courtesy of the U.S. Environmental Protection Agency

How to Clean Up a Broken CFL

The U.S. Environmental Protection Agency recommends the following clean-up and disposal guidelines:

Before Clean-up: Air Out the Room

- Have people and pets leave the room, and don't let anyone walk through the breakage area on their way out.
- Open a window and leave the room for 15 minutes or more.
- Shut off the central forced-air heating/air conditioning system, if you have one.

Clean-Up Steps for Hard Surfaces

- Carefully scoop up glass pieces and powder using stiff paper or cardboard and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
- Wipe the area clean with damp paper towels or disposable wet wipes. Place towels in the glass jar or plastic bag.
- Do not use a vacuum or broom to clean up the broken bulb on hard surfaces.

Clean-up Steps for Carpeting or Rug

- Carefully pick up glass fragments and place them in a glass jar with metal lid (such as a canning jar) or in a sealed plastic bag.
- Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder.
- If vacuuming is needed after all visible materials are removed, vacuum the area where the bulb was broken.
- Remove the vacuum bag (or empty and wipe the canister), and put the bag or vacuum debris in a sealed plastic bag.

Clean-up Steps for Clothing, Bedding and Other Soft Materials

- If clothing or bedding materials come in direct contact with broken glass or mercury-containing powder from inside the bulb that may stick to the fabric, the clothing or bedding should be thrown away. Do not wash such clothing or bedding because mercury fragments in the clothing may contaminate the machine and/or pollute sewage.
- You can, however, wash clothing or other materials that have been exposed to the mercury vapor from a broken CFL, such as the clothing you are wearing when you cleaned up the broken CFL, as long as that clothing has not come into direct contact with the materials from the broken bulb.
- If shoes come into direct contact with broken glass or mercury-containing powder from the bulb, wipe them off with damp paper towels or disposable wet wipes. Place the towels or wipes in a glass jar or plastic bag for disposal.

Disposal of Clean-up Materials

- Immediately place all clean-up materials outdoors in a trash container or protected area for the next normal trash pickup.
- Wash your hands after disposing of the jars or plastic bags containing clean-up materials.
- Check with your local or state government about disposal requirements in your specific area. Some states do not allow such trash disposal. Instead, they require that broken and unbroken mercury-containing bulbs be taken to a local recycling center.

Future Cleaning of Carpeting or Rug: Air Out the Room During and After Vacuuming

- The next several times you vacuum, shut off the central forced-air heating/air conditioning system and open a window before vacuuming.
- Keep the central heating/air conditioning system shut off and the window open for at least 15 minutes after

More information on recycling CFLs...

Consumers should take advantage of recycling options for CFLs where available. Residents in some communities can recycle CFLs through their local recycling programs. Other local programs may hold single-day collection events throughout the year. For more information, contact your local recycling coordinator or solid waste director. For assistance in contacting your local program, call the S.C. Department of Health and Environmental Control's (DHEC) Office of Solid Waste Reduction and Recycling at (800) 768-7348 or visit www.scdhec.gov/environment/lwm/recycle/counties.htm. In addition, there are several companies in South Carolina that recycle fluorescent bulbs. See the listing below for options.

Businesses may be required to recycle their fluorescent bulbs and are encouraged to contact one of the companies listed below for options. Businesses must follow all state and federal regulations regarding the proper management of fluorescent bulbs. Call DHEC's Division of Compliance and Enforcement at (803) 896-4136 for information on applicable hazardous waste regulations.

Where to recycle CFL bulbs in South Carolina

**All Home Depot locations are now
accepting your old CFLs!**

**For a complete listing of other
recycling locations, visit:**
www.scdhec.gov

Diversified Recycling Inc.
Rock Hill, SC
(803) 493-5272
www.diversified.net

Earth Protection Services Inc.
Williamston, SC
(864) 847-7700
www.earthpro.com

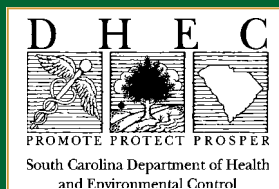
Palmetto Environmental Inc.
Walterboro, SC
(843) 549-5976
www.palmettoenvironmental.com

Safety Kleen Corporation
Lexington, SC
(803) 356-4061

Crandall Corporation
Lexington, SC
(803) 791-4800
www.crandallusa.com

Cleanlites Recycling, Inc.
Spartanburg, SC
(864) 579-4800
www.cleanlites.com

For More Information . . .



**South Carolina Department of
Health and
Environmental Control
Office of Solid Waste
Reduction and Recycling**
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Columbia, SC 29201
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